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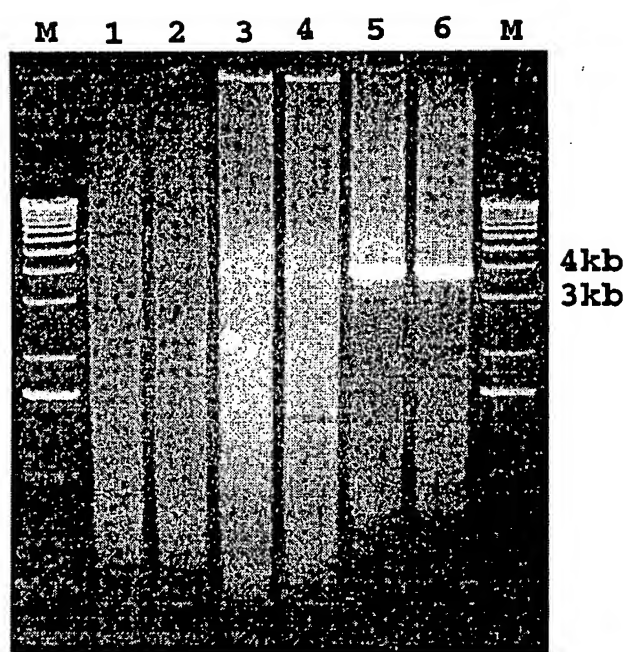
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Fig. 1



| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|----------|-------|------|-----------|------|--------|------|-------|------|------|-----|------|----|----|----|----|----|----|----|----|----|---|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|-----|---|---|---|---|-----|
| Burma | D11092 | China | 100 | GGEIGHQRP | SVIP | GRGNPD | ANVD | TAAFP | SPCQ | ISAF | PHQ | LAEL | GH | RP | VP | VA | AV | LP | PC | PE | LE | Q | GL | LY | L | P | Q | B | E | L | T | D | I | V | H | C | R | M | A | P | S | Q | R | K | A | V | L | 100 | | | | | | | | |
| D11092 | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| D11093 | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| HEV-T1 | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Hetian | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Hyderabad | India | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| KS2-87 | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| L25547 | China | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Madras | India | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Mexico | | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Myanmar | | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Nepal | | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| SAR-55 | Pakistan | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Swine | HEV USA | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| US1 | USA | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| US2 | USA | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| X98292 | India | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 100 | | | | | | | |
| Avian | HEV USA | 99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 99 | | | | | | | |
| LVRP | DAAA | AGVL | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| DT | G | L | D | I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| AHTDV | AVLT | AI | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| LEL | IN | G | V | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| M | A | R | D | G | R | E | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| K | L | O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | | |
| S | T | L | V | G | R | T | K | L | N | A | S | H | S | D | V | R | D | S | L | A | R | I | P | A | I | P | A | I | P | A | I | P | A | I | P | A | I | P | A | I | P | A | I | P | A | I | P | A | I | 200 | | | | | | |
| PAIGV | QV | T | T | C | E | L | V | E | A | M | V | E | K | G | D | S | A | V | L | E | L | D | C | N | R | D | S | R | I | T | F | F | Q | K | D | C | N | K | F | T | T | G | E | T | I | A | H | K | V | G | G | I | S | A | W | 200 |
| EL | IN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| H | R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Hetian | China | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Hyderabad | India | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| KS2-87 | China | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| L25547 | China | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Madras | India | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Mexico | | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Myanmar | | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Nepal | | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| SAR-55 | Pakistan | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Swine | HEV USA | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| US1 | USA | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| US2 | USA | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| X98292 | India | 200 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 200 | | | | | | |
| Avian | HEV USA | 198 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 198 | | | | | | |
| KA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| PEVEY | LM | TI | Q | WHH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| INPS | L | YA | MC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| LS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| LIVH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| QDA | C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| LDDPV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| SKTFCAL | FGPW | FAIE | KAIL | ALL | PGQ | VY | GDA | FD | DT | VF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | |
| SA | AA | AA | KA | SM | V | F | EN | D | E | S | E | F | D | S | T | Q | N | T | S | L | E | C | A | I | M | E | E | C | G | M | P | Q | W | L | I | R | L | Y | H | L | R | S | A | W | I | L | Q | A | P | 299 | | | | | | |
| YE | L | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| G | PGCK | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 299 | | | | | | |
| M | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | |
|-----------------|---|-----|
| Burma | KESLRGFMKKHSGEPCTLLMNTVMNAVITHCYDFRDFQVAAFKGDDSI | 399 |
| D11092 China |L..... | 399 |
| D11093 China |L..... | 399 |
| HEV-T1 China |A..E..LK.....V...D...RD.....T..... | 399 |
| H tian China |L..... | 399 |
| Hyderabad India |L.....MR..... | 399 |
| KS2-87 China |L..... | 399 |
| L25547 China |L..... | 399 |
| Madras India |L..... | 399 |
| Mexico |S.....I.A..E..L.....V.....GS.....A..... | 399 |
| Myanmar |L..... | 399 |
| Nepal |L..... | 399 |
| SAR-55 Pakistan |K.....I.A..E..R.....V...D...RN..A.....Y..... | 399 |
| Swine HEV USA |K.....I.A..E..R.....V...D...RN..A.....Y..... | 399 |
| US1 USA |K.....I.A..E..R.....V...D...XRN..A.....Y..... | 399 |
| US2 USA |L..... | 399 |
| X98292 India |T.LH.V.E.DRPS.LC.....V.V.E.SV.AR.EGVS.V.D...M.DKTG.C.AFSNLLIF..A.VVC.LL.Q | 398 |
| Avian HEV USA |A...C..... | 399 |
| Burma | AGRLTEKNWGPGERAEQLRLAVSDFLRKLTNVAQ--MCVDVVSRYGVSPGLVHNLI | 487 |
| D11092 China |S..... | 487 |
| D11093 China |C..... | 487 |
| HEV-T1 China |K.....DE.I..... | 487 |
| Hetian China |Q..... | 487 |
| Hyderabad India |S..... | 487 |
| KS2-87 China |S..... | 487 |
| L25547 China |S..... | 487 |
| Madras India |S..... | 487 |
| Mexico |S.....D.....Q.....R.....-I..E.....TIG.....I...H..MH.S. | 487 |
| Myanmar |W..... | 487 |
| Nepal |W..... | 487 |
| SAR-55 Pakistan |S.....C.....G.....-V..... | 487 |
| Swine HEV USA |S.....C.....G.....-V..... | 487 |
| US1 USA |S.....C.....G.....-V..... | 487 |
| US2 USA |S.....C.....G.....-V..... | 487 |
| X98292 India |W....D....DIQ.MOD.EQ.CK..VARWTOGKREMLTIQL.AGY...EV.M.EVVM.A.K.C.AARETLVTNRL...N.SKE---D. | 484 |
| Avian HEV USA |W....D....DIQ.MOD.EQ.CK..VARWTOGKREMLTIQL.AGY...EV.M.EVVM.A.K.C.AARETLVTNRL...N.SKE---D. | 484 |

Fig. 2B

[illegible]

Fig. 3C

| | | |
|-----------------|--|-----|
| Burma | CCCCATATTCATCCAAACCCCTTCGCCGCCCGATGTACCGCTGGCGCGGGCTGGACCTCGTGTTCGCCAACCCCGCCGACCACTCGGCTCGGCTTGGCGTGACC | 546 |
| Hyderabad India |GA.....T.....C..... | 546 |
| Madras India |T.....C..... | 546 |
| X98292 India |C..... | 546 |
| HETIAN China |T..... | 546 |
| SAR.55 Pakistan |T..... | 546 |
| Mexico |T.....A.C.TG.....T.....A.....G.....A..TC | 546 |
| KS2.87 China |T..... | 546 |
| D11093 China |T..... | 546 |
| D11092 China |T..... | 546 |
| Myanmar |T..... | 546 |
| HEV-T1 China |AT.T.CA.TC.A.C.....A.....G.....G..AAT..T..... | 541 |
| US2 USA |G.....GTTT.ACAAC.....A.CCC.A.G.G.....C.C.C.T.N..... | 543 |
| US1 USA |G.....GTTT.ACAAC.....A.CCC.A.G.G.....C.C.C.T..... | 543 |
| Nepal |TG.....GTTT.ACAAC.....GT.CCC.A.G.G.....C.C.C.T..... | 546 |
| Swine HEV USA |G.....A.GCA.CCG.G.CCAG.....G.GT..A.T.CA..C.A..A.CACT. | 543 |
| Avian HEV USA |G.....A.GCA.CCG.G.CCAG.....G.GT..A.T.CA..C.A..A.CACT. | 445 |

***ORF3 (HEV)

| | | |
|-----------------|---|-----|
| Burma | AGGCCAGCGCCCGGTTGCTCAGCTCAGTGTAGACCTACACAGCTGGCGCGCGCTAAACCGGCTCGCGGCCATGACACCCCGCCAGTGCCTGATGTGG | 625 |
| Hyderabad India |C.....C.....T..... | 625 |
| Madras India |A.....C.....T..... | 625 |
| X98292 India |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| HETIAN China |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| SAR.55 Pakistan |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| Mexico |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| KS2.87 China |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| D11093 China |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| D11092 China |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| Myanmar |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| HEV-T1 China |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| US2 USA |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| US1 USA |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| Nepal |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| Swine HEV USA |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 625 |
| Avian HEV USA |T.....G.....G.T.G.G.T.....T.A.C.C.G.C.T. | 500 |

***ORF3
(avian HEV)

RdelaHEV Primer

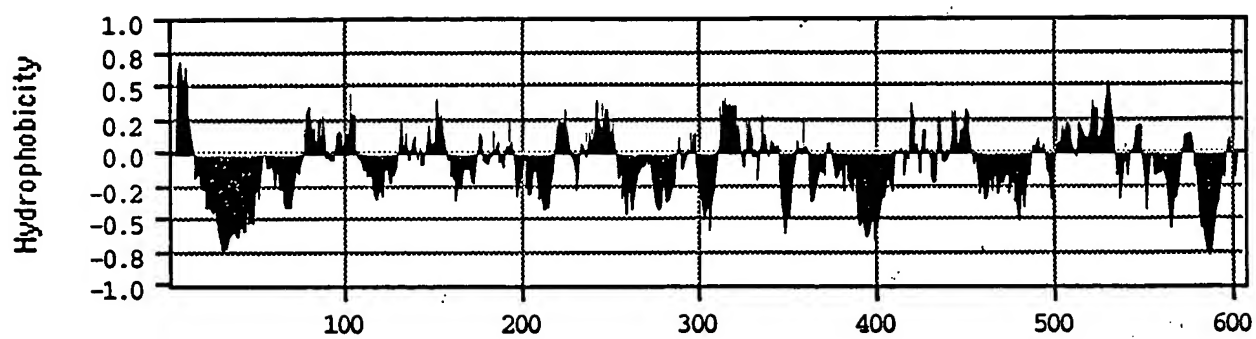


Fig. 4

Fig. 5B

| | | |
|-----------------|---|-----|
| Burma | ASELVIPSERLHYRNOGMRSVETSCVAEEBATSOLVMLCINGHSLVNSVYNTPTTCALQILDPALFPRMLTFCNTNTRVSRYSSTARHRLRGADGTAELETTTAAATPFMDLYFTSTNO | 360 |
| Hyderabad India |P..... | 360 |
| Madras India |P..... | 360 |
| HETIAN China |H..... | 360 |
| SAR.55 Pakistan |P..... | 360 |
| Mexico |P..... | 360 |
| KS5.87 China |P..... | 360 |
| D11093 china |P..... | 360 |
| D11092 China |P..... | 360 |
| HEV.T1 China |P..... | 360 |
| Myanmar |P..... | 360 |
| US2 USA |P..... | 360 |
| US1 USA |P..... | 360 |
| Nepal |P..... | 360 |
| Swine HEV USA |P..... | 360 |
| U22532 India |P..... | 360 |
| AKL.90 India |P..... | 360 |
| Morocco |P..... | 360 |
| Egypt93 |P..... | 360 |
| Egypt94 |P..... | 360 |
| Avian HEV USA |P..... | 360 |
| Burma | GL.T.H.A.A.K.N.....VS.PQ.D...ML.V.V.TPW...SV.P.P.MV.IK.QL.S...A.T.VKV.P.TIKADPS...TI.A.A.A.VRWGLQ.A | 304 |
| Hyderabad India |P..... | 476 |
| Madras India |P..... | 476 |
| HETIAN China |P..... | 476 |
| SAR.55 Pakistan |P..... | 476 |
| Mexico |P..... | 476 |
| KS5.87 China |P..... | 476 |
| D11093 china |P..... | 476 |
| D11092 China |P..... | 476 |
| HEV.T1 China |P..... | 476 |
| Myanmar |P..... | 476 |
| US2 USA |P..... | 476 |
| US1 USA |P..... | 476 |
| Nepal |P..... | 476 |
| Swine HEV USA |P..... | 476 |
| U22532 India |P..... | 476 |
| AKL.90 India |P..... | 476 |
| Morocco |P..... | 476 |
| Egypt93 |P..... | 476 |
| Egypt94 |P..... | 476 |
| Avian HEV USA | ED...H.LGV.....V...ST.LRA.S.Y...GN...E...M...D.VN.P.MV...T.T.TC...G...VD...S.A...K.ALGT..SG...RITGSHQY | 424 |

| | |
|-----------------|-----------------|
| Burma | Hydrabad India |
| Hydrabad India | Hydrabad India |
| Madras India | Madras India |
| HETIAN China | HETIAN China |
| SAR.55 Pakistan | SAR.55 Pakistan |
| Mexico | Mexico |
| K55.87 China | K55.87 China |
| D11093 China | D11093 China |
| D11092 China | D11092 China |
| HEV.T1 China | HEV.T1 China |
| Myanmar | Myanmar |
| US2 USA | US2 USA |
| US1 USA | US1 USA |
| Nepal | Nepal |
| Swine HEV USA | Swine HEV USA |
| UT2532 India | UT2532 India |
| AKU.90 India | AKU.90 India |
| Morocco | Morocco |
| Egypt93 | Egypt93 |
| Egypt94 | Egypt94 |
| Avian HEV USA | Avian HEV USA |
| Burma | Hydrabad India |
| Hydrabad India | Hydrabad India |
| Madras India | Madras India |
| HETIAN China | HETIAN China |
| SAR.55 Pakistan | SAR.55 Pakistan |
| Mexico | Mexico |
| K55.87 China | K55.87 China |
| D11093 China | D11093 China |
| D11092 China | D11092 China |
| HEV.T1 China | HEV.T1 China |
| Myanmar | Myanmar |
| US2 USA | US2 USA |
| US1 USA | US1 USA |
| Nepal | Nepal |
| Swine HEV USA | Swine HEV USA |
| UT2532 India | UT2532 India |
| AKU.90 India | AKU.90 India |
| Morocco | Morocco |
| Egypt93 | Egypt93 |
| Egypt94 | Egypt94 |
| Avian HEV USA | Avian HEV USA |

Fig. 5C

Abstract—The purpose of this study was to determine if there were differences in the prevalence of musculoskeletal disorders among different types of jobs. The subjects were 600 men employed by a large manufacturing company. They were divided into three groups based on their job type: manual labor, semi-skilled work, and professional/managerial work. Data were collected through self-reported questionnaires and medical records. Results showed that the prevalence of musculoskeletal disorders was highest among manual laborers, followed by semi-skilled workers, and lowest among professionals/managers. Specific disorders like low back pain and carpal tunnel syndrome were more prevalent in manual laborers.

Fig. 6

Fig. 7

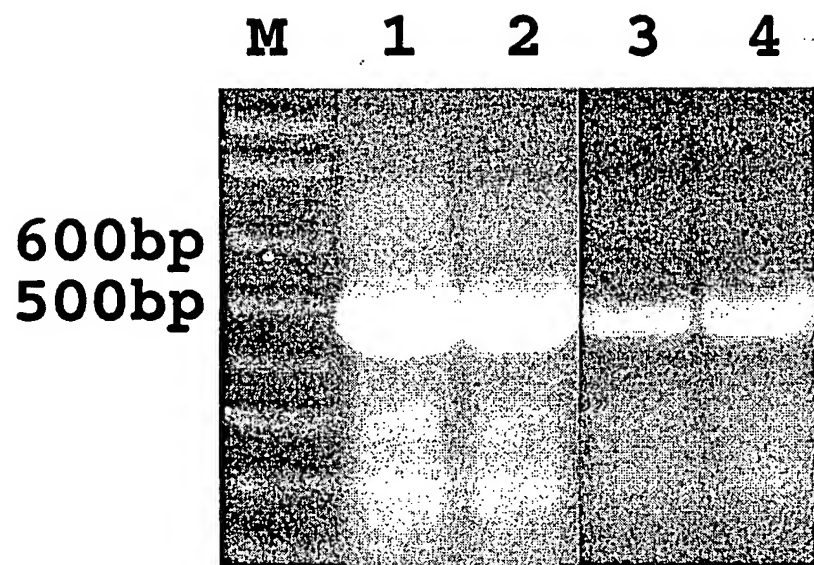


Fig. 8A

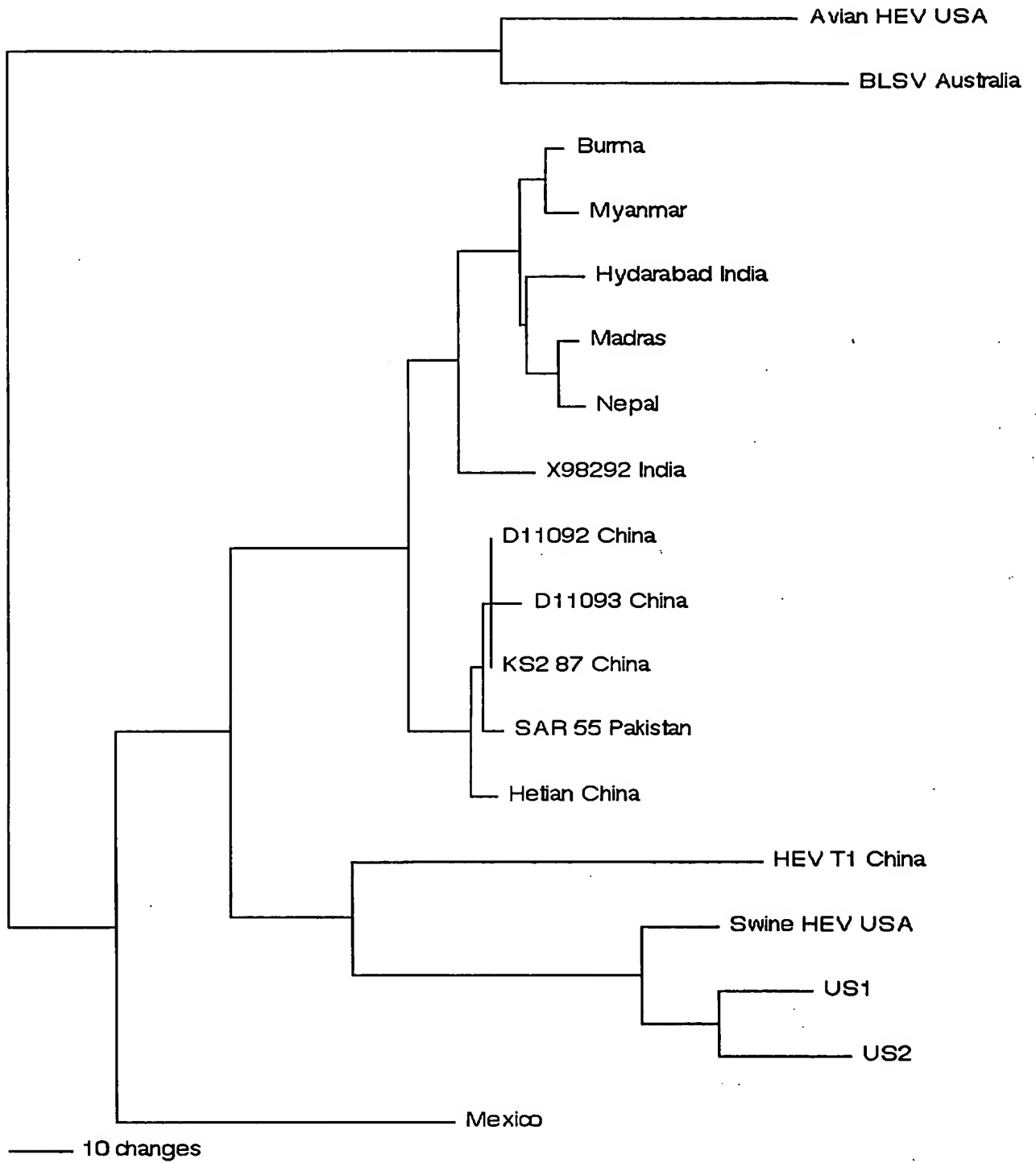


Fig. 8B

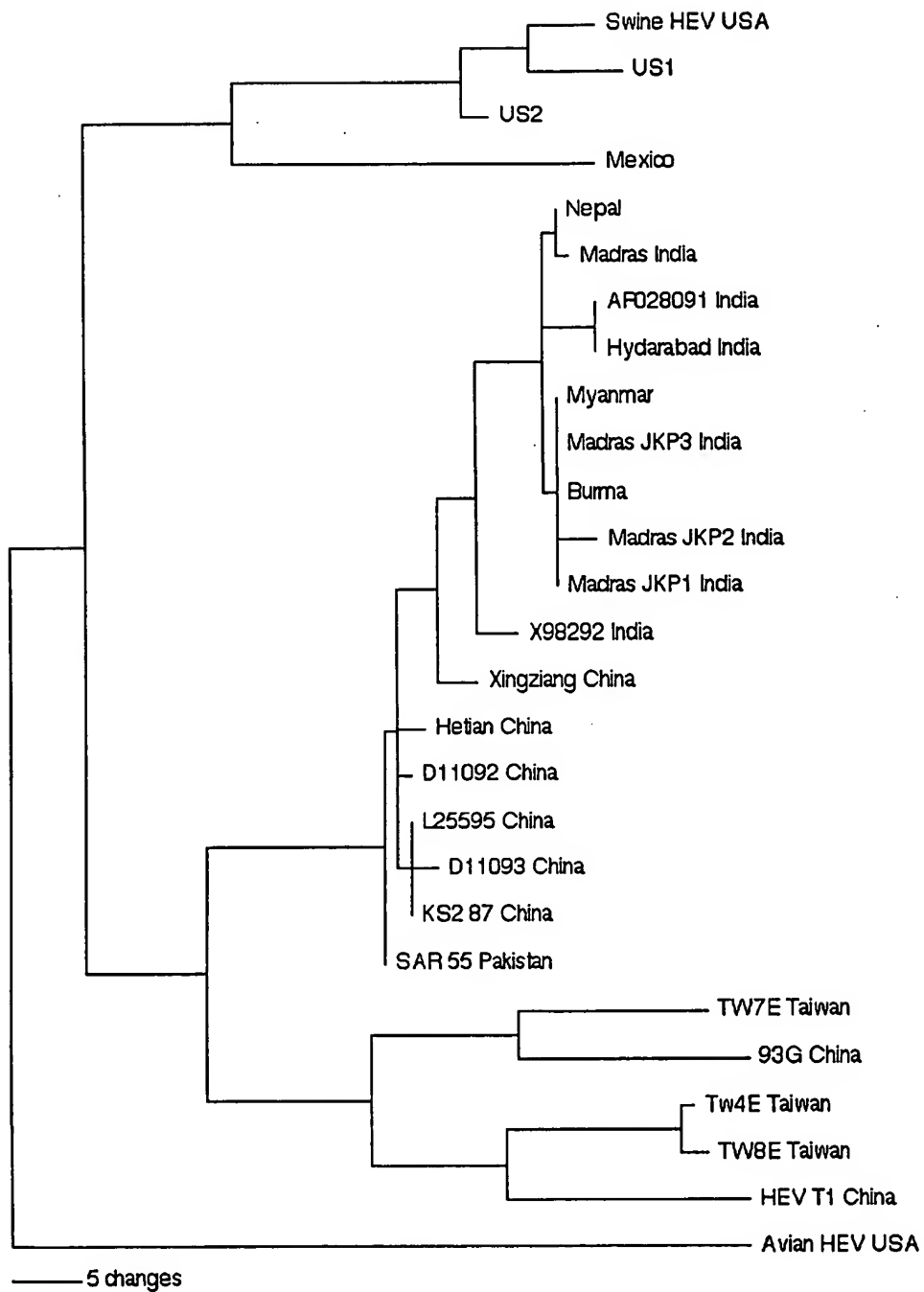


Fig. 8C

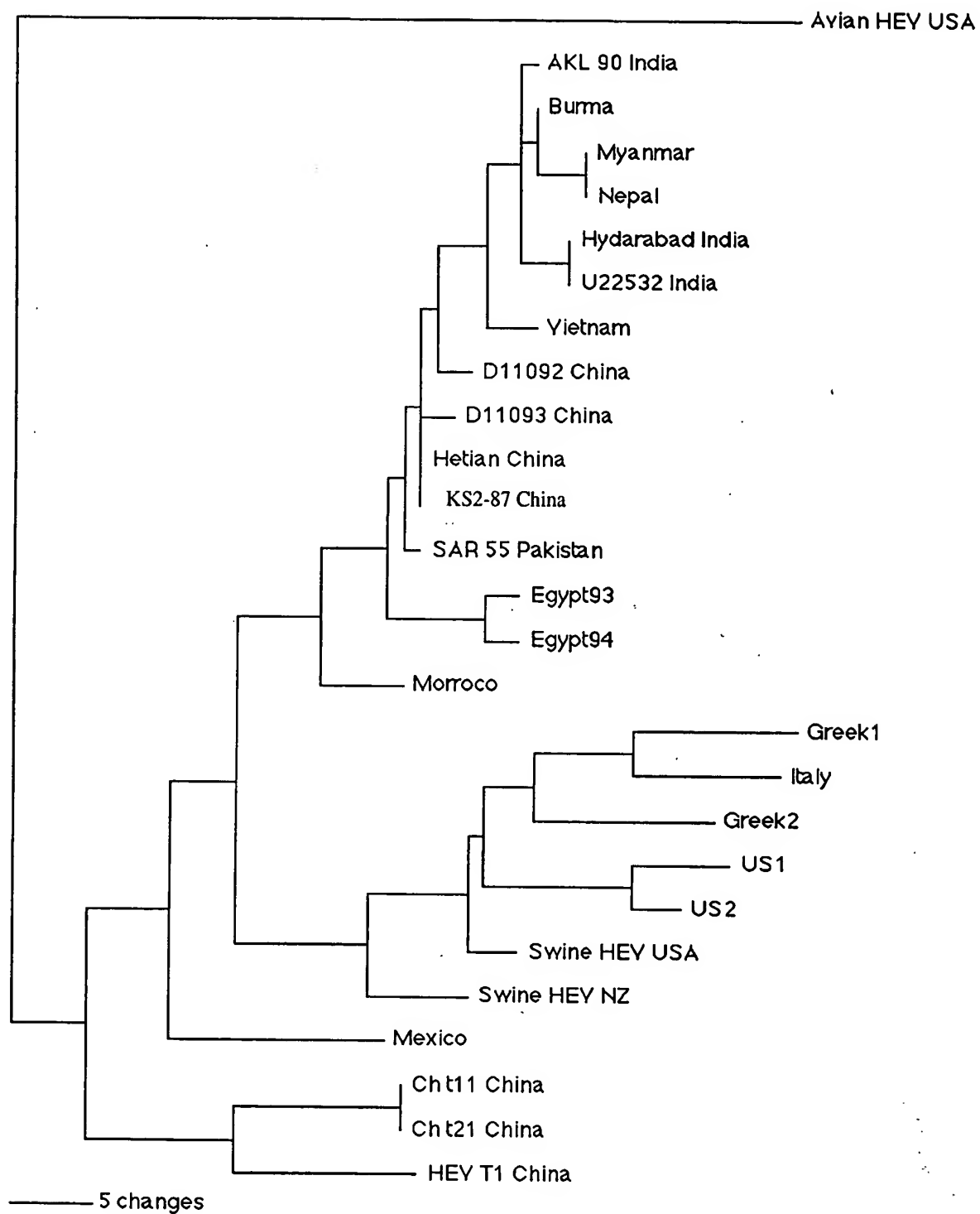


Fig. 9A

ACCAGCATTGGATTTTCGATGGACGCTGTTTAACGAGCGCCGTTGATCTTGGG
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT
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CAGGTGGCCAAGCAGTCGAACCCCGGTCCATAACGGTCCATGAGGCGCAG
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTCGAGATTGGAGTTACT
GATGCCATGTTTAACAATATCGAAATGCAGCTTGTGCGACCTGATGCTGCAG
CCCCTGCCGGGGTGCTACGAGCCCCAGACGACACCGTGGATGGCTTGTGGA
CATACCCCGGCCACACTGATGTAGCGGCGGTGTTAACAGCTGAGGCGATT
GGGCATGCGCCCCCTGAATTGGCCGCCATAAATCCACCCGGGCCTGTATTGG
AGCAGGGCCTATTATACATGCCGGCCAGGCTTGATGGGCGTGATGAGGTTGT
TAAGCTCCAGCTGTCGGATACTGTACACTGCCGCCTGGCTGCACCCACTAGC
CGTCTTGCGGTGATTAACACATTGGTTGGGCGGTACGGTAAAGCCACTAAGC
TGCTTGAGGTTGAATATGACTTAATGGACACTATTGCGCAGTTCTGGCATCA
TATCGGACCAATCAACCCCTCAACACTGGAGTATGCAGAGATGTGCGAGGC
CATGCTTAGTAAGGGCCAGGATGGGTCCTTGATTGTACATCTGGATTTACAG
GATGCTGATTGTTCTCGCATAACATTCTTCCAGAAGGACTGCGCTAAATTTA
CGCTGGATGACCCTGTTGCACACGGTAAAGTGGGACAGGGGATATCTGCGT
GGCCGAAAACCTTTGTGTGCACTTTTCGGCCCCCTGGTTCCGGGCTATAGAGAA
GCACCTTGTTGGCTGGGTTACCCCCAGGTTATTACTATGGGGACCTGTACACG
GAAGCCGATCTGCATCGTTCTGTGCTTTGCGCGCCTGCTGGTCACCTTGTTTT
TGAGAATGATTTCTCAGAGTTTGACTCAACGCAGAATAATGTGTCCCTTGAT
CTCGAATGTGAATTGATGCGCAGGTTTGGGATGCCCGATTGGATGGTAGCCT
TGTACCATCTTGTTTCGATCATACTGGCTCTTGGTTGCCCCGAAAGAAGCCCTT
CGTGGCTGTTGGAAAAAACACTCTGGTGAGCCGGGCACCCTTTTGTGGAATA
CAGTTTGGAACATGACTGTGTTGCATCATGTTTATGAGTTTGATCGACCAAG
TGTGTTGTGTTTCAAAGGTGATGATAGTGTCTGTGAATCGGTGCGC

Fig. 9B

GCCCGTCCAGAGGGCGTTAGTCTCGTGGCAGACTGCGGGCTAAAAATGAAG
GACAAGACCGGCCCGTGTGGCGCCTTTTCCAACCTGCTGATCTTCCCGGGAG
CTGGTGTGTCTGCGACCTGTTACGGCAGTGGGGCCGCTTGACTGACAAGAA
CTGGGGGGCCCGACATTCAGCGGATGCAGGACCTTGAGCAAGCGTGTAAGGA
TTTTGTTGCACGTGTTGTAACCTCAGGGTAAAGAGATGTTGACCATCCAGCTT
GTGGCGGGTTATTATGGTGTGGAAGTTGGTATGGTTGAGGTGGTTTGGGGGG
CTTTGAAGGCCTGCGCCGCAGCCCGCGAGACCCTAGTGACCAACAGGTTGCC
GGTACTAACTTATCTAAGGAGGACTGAACAAATAACAATCATTATGCAGT
CTGCGCGTCCATGTGCCTTAGCTGCCAGTTCTGGTGTGTTGGAGTGCCAGGAA
AGTGGGGTGGGATGTCGCTGTGTAGATTGTTGCTCATGCTTGCAATGTGCTG
CGGGGTGTCAAGGGGGCTCCCAAACGCTCCCAGCCGGAGGCAGGCGTGGCCA
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AGCCGTCGGCCCCGCCCCCTCTCACAGACGTTGTCACCGCGGCAGGTACTCGC
ACGGTACCAGATGTAGATCAAGCCGGTGCCGTGCTGGTGCGCCAGTATAATC
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TTATGCCGCACCGGTGTCACCGTTAATGCCGCTTCAGGACGGCACGACGTCT
AATATCATGAGCACGGAGTCTAGCAACTATGCTCAATACCGTGTACAGGGCC
TAACTGTCCGCTGGCGCCCAGTTGTGCCAAATGCGGTGGGCGGCTTCTCTAT
AAGCATGGCCTATTGGCCCCAGACAACATCCACCCCTACAAGCATTGACATG
AATTCCATCACGTCCACTGACGTCCGTGTGGTGCTTCAGCCGGGCTCTGCTG
GTTTGCTGACTATACCACATGAGCGTTTGGCGTATAAGAACAATGGTTGGCG
GTCCGTCGAAACGGTATCCGTCCCACAGGAGGATGCCACGTCCGGCATGCTC
ATGGTTTGTGTCCACGGGACCCCCTGGAATAGTTATAACCAATAGTGTTTACA
CCGGGCGGCTTGGTATGGTTGATTTTGCCATAAAGTTACAGCTAAGGAACTT
GTCGCCCCGTAATACAAATGCCAGGGTCACCCGTGTGAAGGTGACGGCCCC
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AAATTGGTCACGGCATCCTTGGTGTCTGTTTAACCTGGCGGACACAGTTTT
AGGTGGCTTGCCCTCGACACTGCTGCGGGCGGCGAGTGGTCAGTACATGTAC

Fig. 9C

GGCCGGCCTGTGGGGAACGCGAACGGCGAGCCTGAGGTGAAACTGTATATG
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ACCTCGGGACCAGCACTGTCACCTGCCAGGACTATGGGAATCAGCATGTGG
ATGACCGCCCATCCCCGGCCCCGGCCCCCTAAGCGAGCTTTGGGCACCCTAAG
GTCAGGGGATGTGTTGCGTATTACTGGCTCCATGCAGTATGTGACTAACGCC
GAGTTGTTACCGCAGAGTGTGTACAGGGGTACTTTGGGGCCGGCAGCACC
ATGATGGTGCATAATTTGATCACTGGTGTGCGCGCCCCCGCCAGTTCAGTCG
ACTGGACGAAGGCAACAGTGGATGGGGTCCAGGTGAAGACTGTCGATGCTA
GTTCTGGGAGTAATAGGTTTGCAGCGTTACCTGCATTTGGAAAGCCAGCTGT
GTGGGGGGCCCCAGGGCGCTGGGTATTTCTACCAGTATAACAGCACCCACCA
GGAGTGGATTTATTTTCTTCAGAATGGTAGCTCCGTGGTTTGGTATGCATATA
CTAATATGTTGGGCCAGAAGTCAGATACATCCATTCTTTTTGAGGTCCGGCC
AATCCAAGCTAGTGATCAGCCTTGGTTTTTGGCACACCACACTGGCGGCGA
TGACTGTACCACCTGTCTGCCTCTGGGGTTAAGAACATGTTGCCGCCAGGCG
CCAGAAGACCAGTCACCTGAGACGCGCCGGCTCCTAGACCGGCTTAGTAGG
ACATTCCCCTCACCACCCTAATGTCGTGGTTTTTGGGGTTTTAGGTTGATTTTC
TGTATCTGGGCGTAATTGCCCCTATGTTTAATTTATTGTGATTTTTATAACTG
TTCATTTGATTATTTATGAAATCCTCCCATCTCGGGCATAGTAAAAAAAAAA
AAAAA

Fig. 10

PALDFDGRCLTSAVDLGLQPTSWRTVSHRCPWDVCIFLRTDYPTITTTSRVLRSV
VFTGETIGQKIVFTQVAKQSNPGSITVHEAQGSTFDQTTIATLDARGLIASSRAH
AIVALTRHRERCSVIDVGGVLVEIGVTDAMFNNIE

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Fig. 11

ACCAGCATTGGATTTTCGATGGACGCTGTTTAACGAGCGCCGTTGATCTTGGG
TTGCAGCCTACCAGCTGGCGCACCGTATCCCACCGTTGCCCTTGGGACGTTT
GTATATTTTTGCGTACTGATTATCCGACTATCACCACAACCAGTAGGGTGCT
GCGGTCTGTTGTGTTTACCGGTGAAACCATTTGGTCAGAAGATAGTGTTTACC
CAGGTGGCCAAGCAGTCGAACCCCGGGTCCATAACGGTCCATGAGGCGCAG
GGCAGTACTTTTGATCAGACTACTATAATCGCCACGTTAGATGCTCGTGGCC
TTATAGCTTCATCTCGCGCGCATGCCATAGTTGCGCTAACCCGCCACCGGGA
GCGCTGTAGTGTGATTGATGTTGGTGGGGTGCTGGTCGAGATTGGAGTTACT
GATGCCATGTTTAACAATATCGAA

1002940.1.3.101

Fig. 12

LVRPDAAAPAGVLRAPDDTVDGLLDIPPAHTDVAAVLTAEAIGHAPLELAAINP
PGPVLEQGLLYMPARLDGRDEVVKLQLSDTVHCRLAAPTSLAVINTLVGRYG
KATKLPEVEYDLMDTIAQFWHHIGPINPSTLEYAEMCEAMLSKGQDGLIVHLD
LQDADCSRITFFQKDCAKFTLDDPVAHGKVGQGISAWPKTLCALFGPWFAIEK
HLVAGLPPGYYYGDLYTEADLHRSVLCAPAGHLVFENDFSEFDSTQNNVSLDL
ECELMRFRFGMPDWMVALYHLVRSYWLLVAPKEALRGCWKKHSGEPGTLLWN
TVWNMTVLHHVYEFDRPSVLCFKGDDSVVVCESVRARPEGVSLVAD`CGLKMK
DKTGPCGAFSNLLIFPGAGVVCDLLRQWGRLTDKNWGPDIQRMQDLEQACKDF
VARVVTQGKEMLTIQLVAGYYGVEVGMVEVVWGALKACAAARETLVTNRLP
VLNLSKED

10025640.123101

Fig. 13

gcttgtgcgacctgatgctgcagccccctgccggggtgctacgagccccagacgacaccgtggatggcttgttgacataccc
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gttgcacgtgttgaactcagggtaaagagatgttgaccatccagcttggcggggttattatggtgtggaagtggatgggtg
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taaggaggac

Fig. 14

MSLCRLLMLAMCCGVSRGSQTLPAAGRRGQRRRDNSAQWSTQQRPEGAVGP
APLTDVVTAAGTRTPDQAGAVLVRQYNLVTSPGLATLGSTNALLYAAPV
SPLMPLQDGTTSNIMSTESSNYAQYRVQGLTVRWRPVVPNAVGGFSISMAYWP
QTTSTPTSIDMNSITSTDVRVVLQPGSAGLLTIPHERLAYKNNGWRSVETVSVPO
EDATSGMLMVCVHGTPWNSYTNVYTGPLGMVDFAIKLQLRNLSPGNTNARV
TRVKVTAPHTIKADPSGATITTTAAAARFMADVVRWGLGTAEDGEIGHGILGVLF
NLADTVLGGLPSTLLRAASGQYMYGRPVGNGEPEVKLYMSVEDAVNDKPI
MVPHDIDLGTSTVTCQDYGNQHVDDRSPAPAPKRALGTLRSGDVLRTGSMQ
YVTNAELLPQSVSQGYFGAGSTMVHNLITGVRAPASSVDWTKATVDGVQVK
TVDASSGSNRFAALPAFGKPAVWGPQGAGYFYQYNSTHQEWIYFLQNGSSVV
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RQAPEDQSPETRLLDRLSRTFPSPP

1002040133401

Fig. 15

atgtcgtgtgtagattgttgcctcatgcttgaatgtgctgcgggggtgcaaggggctcccaaacgctcccagccggaggcagg
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cacagacgttgtcaccgcggcaggtactcgcacgggtaccagatgtagatcaagccgggtgccgtgctggtgcgcaggtataatc
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tcaggacggcacgacgtctaatacatgagcacggagtctagcaactatgctcaataccgtgtacagggcctaactgtccgtg
gcgcccagttgtgccaaatgcgggtggcggttctctataagcatggcctattggccccagacaacatccaccctacaagcat
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actaatatgttgggcccagaagtcagatacatccattcttttaggtccggccaatccaagctagtgtatcagccttggttttggca
caccacactggcgccgatgactgtaccacctgtctgcctctggggtaagaacatgttgcggccaggcgccagaagaccagtc
acctgagacgcgcggctcctagaccggcttagtaggacattcccctcaccaccctaa

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Fig. 16

MCLSCQFWCLECQESGVGCRCVDCCLQCAAGCQGAPKRSQPEAGVASAAV
TIQPSGALNNAPREPSAPPLSQTLSPRQVLARYQM

[illegible]

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THE HISTORY OF THE

Fig. 18A



Fig. 18B



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Fig. 19A

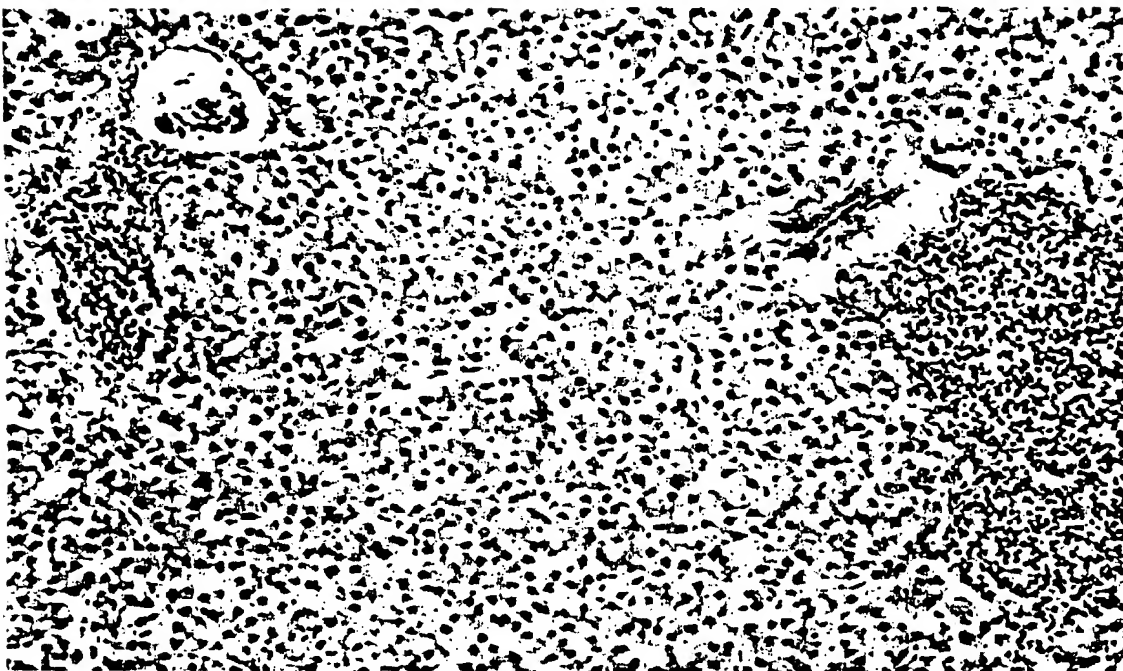
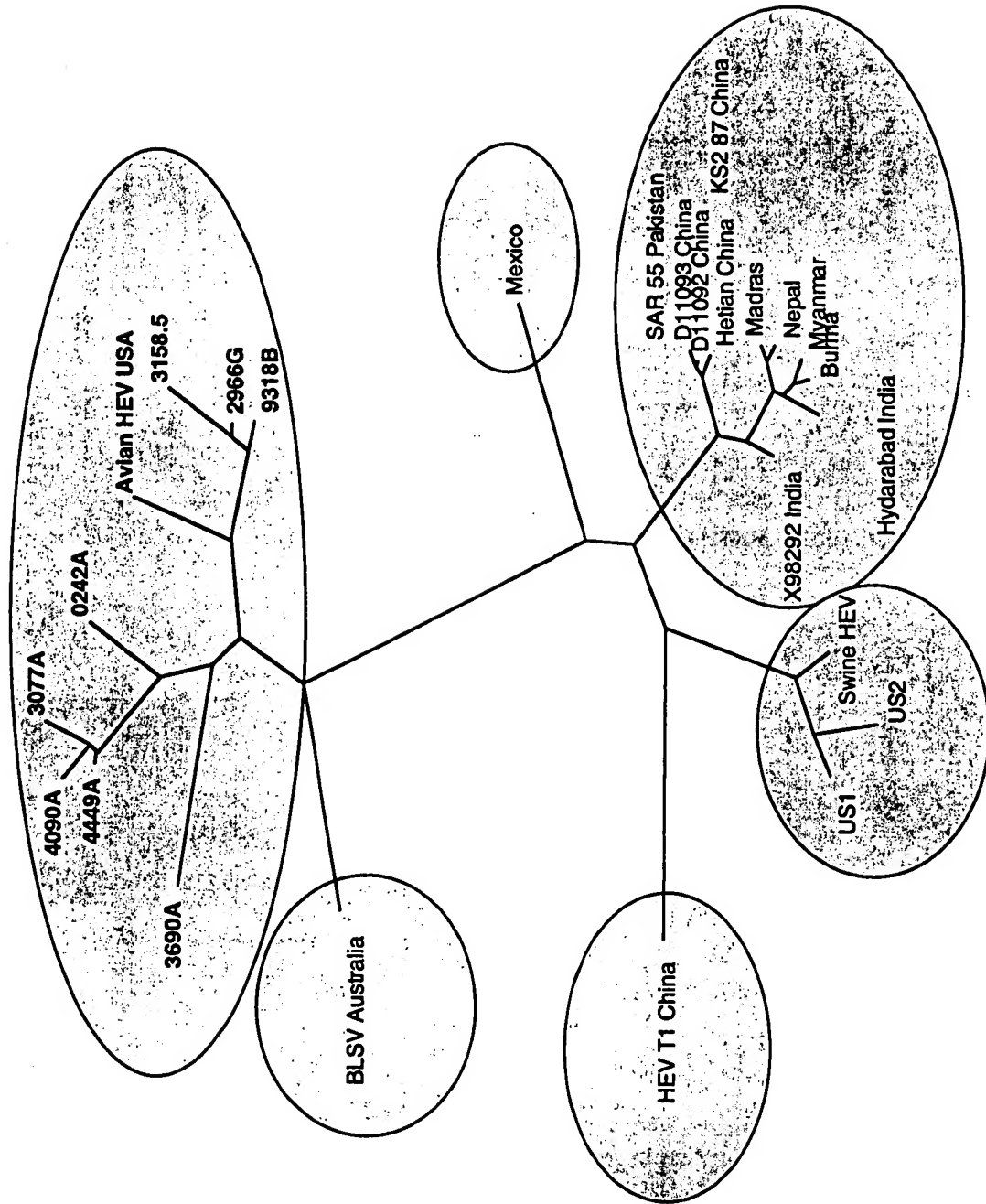


Fig. 19B

Fig. 20



— 10 changes

Fig. 21A

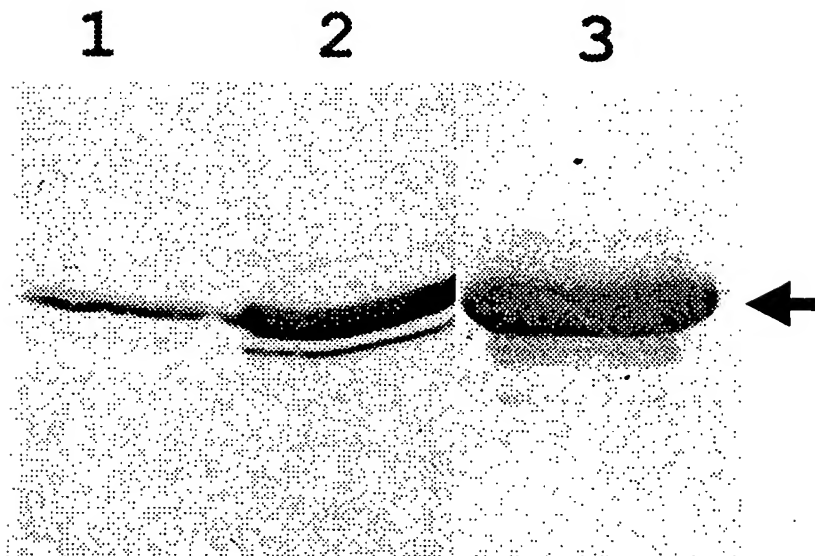
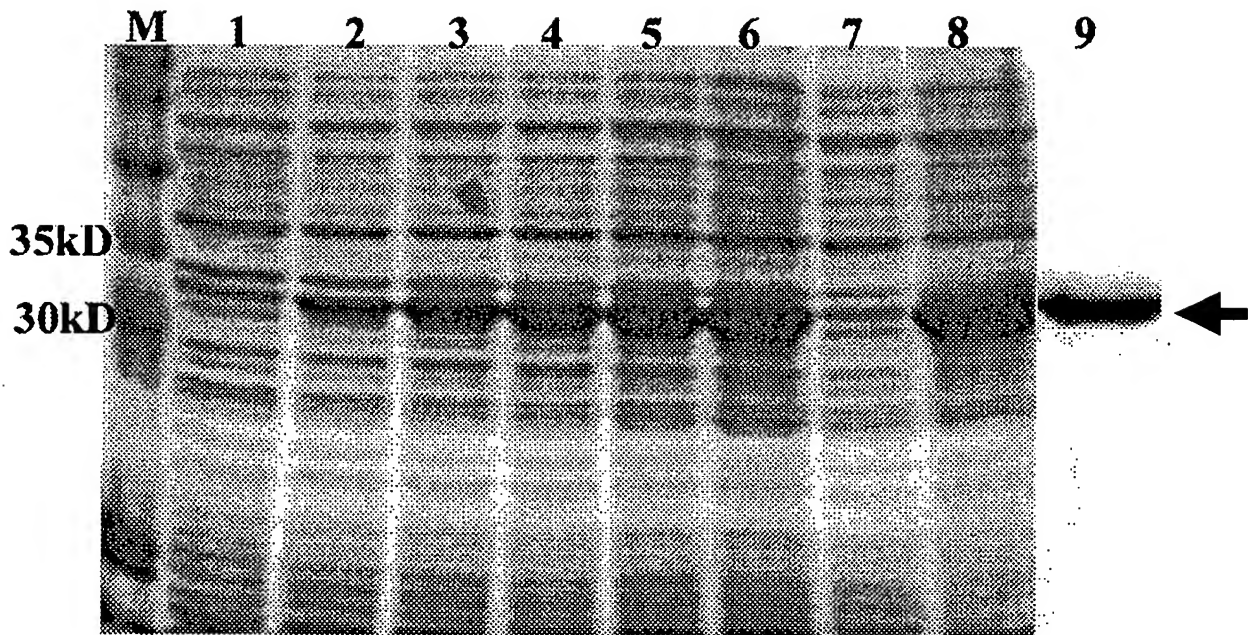


Fig. 21B

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Fig. 22A

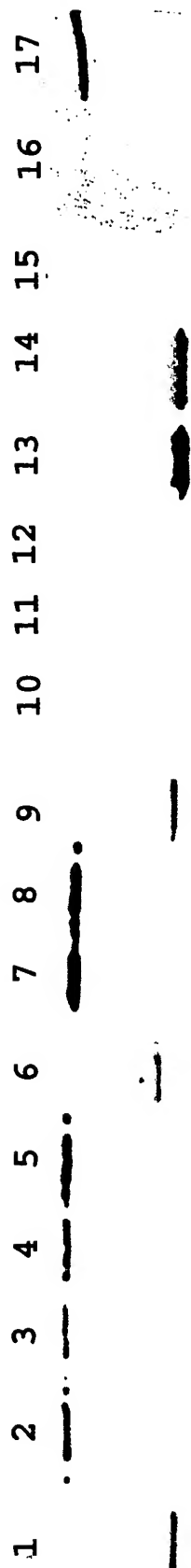


Fig. 22B

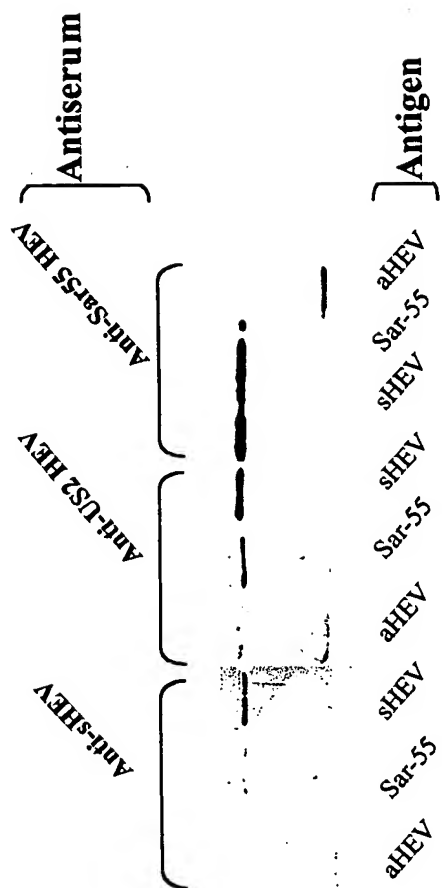


Fig. 22C

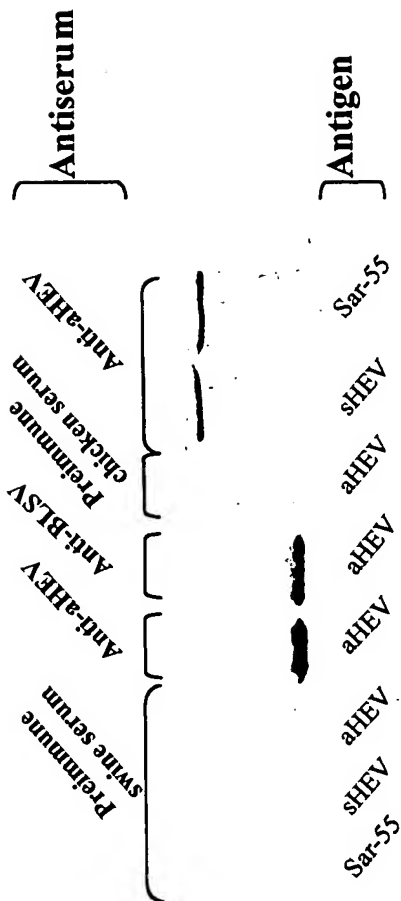
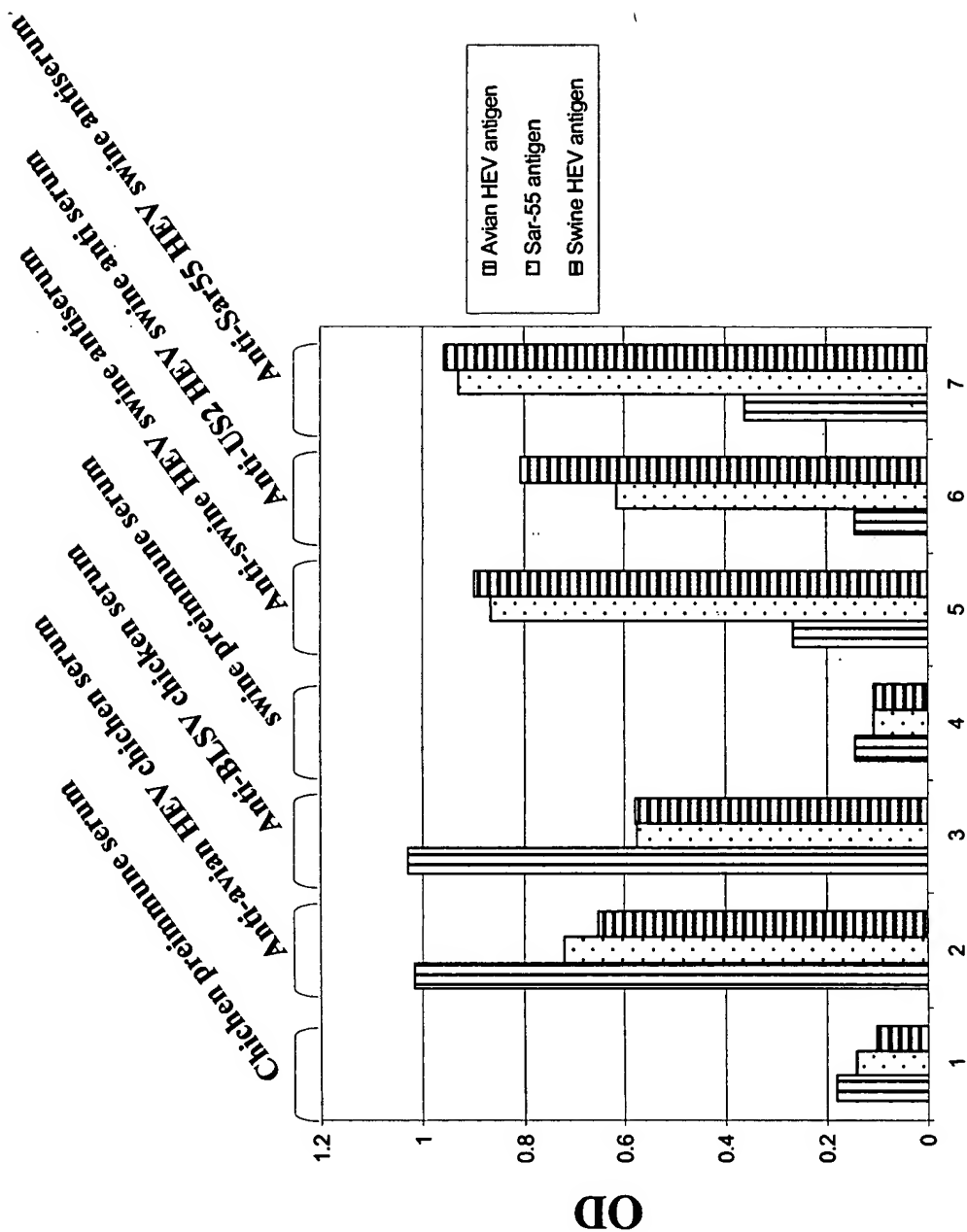


Fig. 23



[illegible]

```
Avian HEV  APEDQSPETRRLLDRLSRTFPSP
Swine HEV  S---TIA.LQ..KMKVGK.RE.--
US-2       S---TIA.LQ..KMKVGK.RE.--
Sar-55     S---TVA.LQ..KMKVGK.REL--
```

Fig. 25A

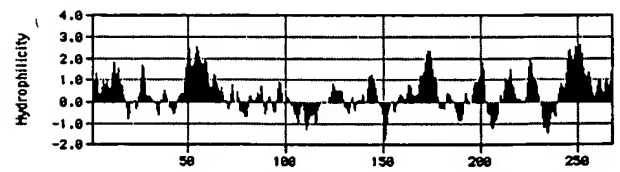
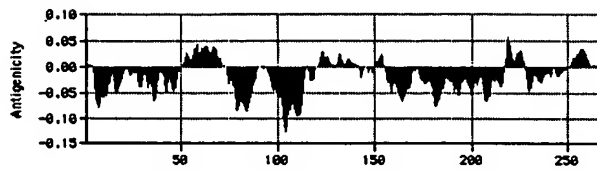


Fig. 25B

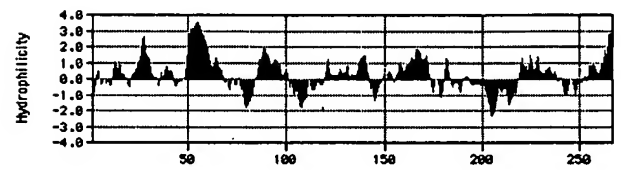
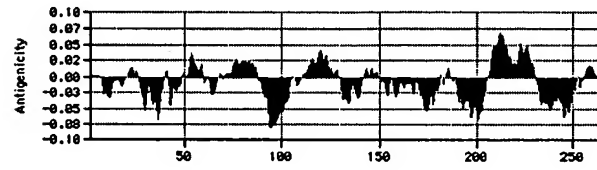


Fig. 25C

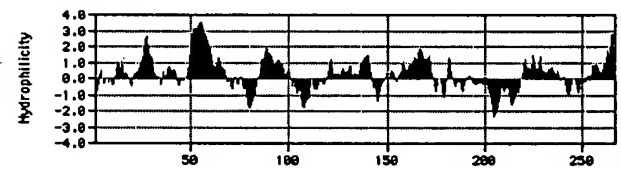
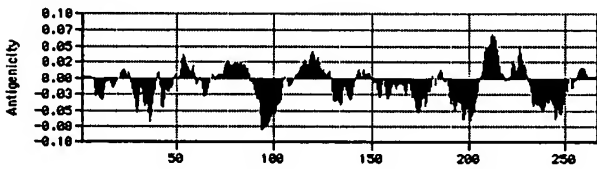


Fig. 25D

